

was to assess the incremental cost effectiveness of using serum CysC (sCysC), urine NGAL (uNGAL) and urine L-FABP (uL-FABP) for the diagnosis of AKI in children after cardiac surgery compared with current diagnostic method (monitoring of sCr level). **METHODS:** We developed a decision analytical model to estimate quality-adjusted life years (QALY), lifetime costs and incremental cost-effectiveness of different biomarker-based diagnostic strategies which can be used in clinical practice compared to current strategy. This model simulates detection of AKI, its progression to chronic kidney disease (CKD) and CKD treatment in cohort of patients younger than 18 years. **RESULTS:** The cost-effectiveness ratios were between \$1485/QALY for sCr and \$3579/QALY for uNGAL. uNGAL and sCys C strategies yielded higher costs and lower effectiveness (ie. dominated) compared to uL-FABP strategy. uL-FABP added 1.43 QALY compared to current diagnostic method at an additional cost of \$8521.87. ICER for uL-FABP compared to sCr was \$5959.35/QALY. Probabilistic sensitivity analyses indicated that the uL-FABP strategy was cost-effective for all 10,000 patient simulations at specified \$5000/QALY threshold. **CONCLUSIONS:** Our results suggest that the use of uL-FABP is likely to represent an economically advantageous strategy for early AKI diagnosis in children after cardiac surgery. However, we need rapid screening uL-FABP test to ensure timely and efficient AKI treatment.

### PIH38

#### COST-EFFECTIVENESS ANALYSIS OF THE THERAPY OF ENDOMETRIOSIS

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**OBJECTIVES:** Endometriosis is a disease with social and economic impact. We analyses the clinical and pharmaco-economical efficacy of the treatment of genital endometriosis. **METHODS:** This open-label prospective comparative research was performed in 2012-2013 on Center of Endometriosis of Astana. Results of treatment taken from 180 female patients with endometriosis aged 19-35 years old were included into the study. All of them were divided on three groups depending on the methods of therapy. 1<sup>st</sup> group have an endo-surgery treatment (60 patient), 2<sup>nd</sup> group (60 patient) - only hormonal therapy (Dienogest 2 mg per day for 6 months) and 3<sup>rd</sup> group - combined therapy (after endo-surgery taken the Dienogest 2 mg per day for 6 months). For the calculation of cost/effectiveness index we included all of the direct medical expenses. **RESULTS:** In the first group efficacy index is 66,7%, in the second group - 70,0% and in the third group - 91,7%. Index cost/effectiveness for endo-surgery is 143 298 KT (1\$=182KT), cost/effectiveness for hormonal therapy is 92 428 KT and cost/effectiveness for combined methods is 115 718 KT. Surgical treatment has the low efficiency of the high costs compared with other therapies. The indicator of cost/effectiveness of the combined therapy is higher than in the hormonal treatment: higher efficiency cost in additional costs. For the objectification of this fact calculated Incremental Index per patient: 186 500 - 107 833 / 92.0 - 70.0 = 182 KT. So, the increase of one percent of effectiveness combined therapy compare to hormonal therapy reflects additional cost, not more than 182 KT per patient. **CONCLUSIONS:** Hormonal therapy resulted as the cost-saving therapy of genital endometriosis in young women. The higher efficiency of treatment of endometriosis are needed additional expenses.

### PIH39

#### COST-UTILITY ANALYSIS OF PREVENTIVE HOME VISITS IN OLDER ADULTS

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**OBJECTIVES:** Most elderly prefer to grow old in the community within a familiar environment, instead of moving to a nursing home. Preventive home visits based on multidimensional geriatric assessment can be one strategy to support this preference and might additionally reduce health care costs, due to the avoidance of costly nursing home admissions. The purpose of this study was to analyse the cost-effectiveness of preventive home visits from a societal perspective in Germany. **METHODS:** This study is part of a multi-centre, non-blinded, randomised controlled trial. Participants were older than 80 years and living at home. Three home visits were conducted to identify self-care deficits and risk factors, to present recommendations and to implement solutions. The control group received usual care. A cost-utility analysis using QALY based on the EQ-5D was performed. A cost-effectiveness acceptability curve controlled for confounding variables was constructed. A sensitivity analysis to control for the influence of the mode of QALY calculation was performed. **RESULTS:** 278 individuals were included in the analysis. Mean total cost (+874 EUR) and number of QALY (+0.0014) were higher in the usual care group, but differences were not significant. The probability for cost-effectiveness of preventive home visits increased from 6% (Willingness-to-pay: 0 € / QALY) 30% (Willingness-to-pay: 250.000 € / QALY). The results were robust to the mode of QALY calculation. The probability of cost-effectiveness did not exceed 30%. **CONCLUSIONS:** We found convincing evidence that the evaluated preventive home visits programme is not cost-effective.

### PIH40

#### EVALUATION OF THE ECONOMIC BURDEN OF MENOPAUSAL WOMEN IN THE U.S. MEDICAID PROGRAM

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**OBJECTIVES:** To evaluate the economic burden of menopausal women enrolled in the U.S. Medicaid program. **METHODS:** Menopausal women (International Classification of Disease, 9<sup>th</sup> Revision, Clinical Modification [ICD-9-CM] diagnosis code 627) were identified using U.S. Medicaid data from 01JAN2008 through 31DEC2010. The initial diagnosis date was designated as the index date. A separate group of patients without a menopause diagnosis but of the same age, race, and gender was identified, matched and designated as the comparison group. A random index date was chosen to mini-

mize selection bias. Patients in both groups were required to be at least age 18 years, with continuous medical and pharmacy benefits 1 year before, and 1 year after the index date. One-to-one propensity score matching (PSM) was used to compare health care costs and utilizations during the follow-up period between the menopausal and the comparison groups, and were adjusted for baseline demographic and clinical characteristics. **RESULTS:** After risk adjustment by PSM, a total of 67,740 patients in each cohort were matched. More menopausal patients had inpatient admissions (15.18% vs. 11.89%, p<0.0001) and other service (99.98% vs. 90.29%, p<0.0001) and pharmacy visits (86.55% vs. 71.23%, p<0.0001) compared to those without menopause. Menopausal patients also incurred significantly higher other service visit (\$11,215 vs. \$8,812, p<0.0001) and pharmacy costs (\$2,448 vs. \$1,878, p<0.0001) than comparison patients. **CONCLUSIONS:** In the U.S. Medicaid program, menopausal patients had higher health care utilization and incurred higher costs than those without menopause, highlighting the economic burden of the disease.

### PIH41

#### COST-UTILITY ANALYSIS COMPARING PROPRANOLOL WITH CORTICOSTEROIDS IN THE TREATMENT OF PROLIFERATING INFANTILE HEMANGIOMA IN ITALY

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**OBJECTIVES:** Infantile Hemangioma (IH) is one of the most common childhood benign tumours. Recent studies have demonstrated the success of propranolol for involution of IH and the higher clinically effective and safe compared with corticosteroids. The purpose of this study is to estimate the cost-utility of propranolol, a new medicinal product authorized for this specific paediatric indication (3.75 mg/mL, oral solution) versus corticosteroids (5.00 mg, tablets), used in clinical practice in absence of other authorised therapies of proliferating IH requiring systemic treatment. **METHODS:** A life-time (30 years) mixed decision tree and Markov model has been developed to describe the pathway of infants with IH and to assess costs and outcomes (Quality-Adjusted Life Years – QALYs – gained) from the perspective of the Italian National Health Service (NHS). Clinical inputs derive from the manufacturer's pivotal trial and literature review, validated by key clinicians in Italy. The economic evaluation considers direct medical costs associated with IH (drug acquisition, hospital admissions and outpatient visits) derived from public sources. The atopic dermatitis as a proxy for IH utilities, the Infants Dermatitis Quality of Life Index and the Children's Dermatology Life Quality Index were used to estimate quality of life. Probabilistic sensitivity analyses (PSA) were performed to investigate model parameter uncertainties. Costs and health benefits have been discounted at an annual rate of 3.00%. **RESULTS:** The cumulative costs are €2,399.32 and €1,859.68 while cumulative QALYs are 19.11 and 18.95 for propranolol and for corticosteroids respectively, corresponding to an ICUR of €3,372.75/QALY. PSA results suggest that 94.60% of the 1000 iterations fall within a €30,000 cost-effectiveness threshold considered acceptable for a marginal unit of effectiveness. **CONCLUSIONS:** The propranolol (3.75 mg/mL, oral solution for paediatric use) for the treatment of proliferating IH can be considered cost-effective compared to corticosteroids (5.00 mg, tablets) in the INHS perspective.

### PIH42

#### COST EFFECTIVENESS ANALYSIS OF A VACCINE TO PREVENT HERPES ZOSTER AND POSTHERPETIC NEURALGIA IN ITALY

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**OBJECTIVES:** The aim of this study was to assess the cost-effectiveness of HZ vaccination compared to no vaccination strategy which only involves the treatment of patients affected by HZ, within the Italian context. **METHODS:** The natural history of HZ and PHN was mapped through a Markov model with lifetime horizon and cycles lasting one month. Both third party payer (the Italian National Health Service) and societal perspectives were adopted. Costs and Effectiveness data was derived from literature and discounted by 3.5%. Model results are expressed in terms of incremental cost-effectiveness ratio (ICER). Both deterministic and probabilistic sensitivity analyses were performed to appraise the effect of parameters' variation on model results. **RESULTS:** A population of patients with HZ aged between 60 and 79 years was hypothesized. The ICER of the vaccination equaled € 12,155 per QALY under the NHS perspective and € 11,118 per QALY under the societal perspective. Moreover, under NHS perspective the cost per HZ-episode avoided and the cost per PHN-episode avoided amounted to € 1,098 and € 8,742 respectively. Considering a cost-effectiveness threshold of €30,000/QALY, the probabilistic sensitivity analysis showed that vaccination is cost-effective regardless of the perspective adopted, in 99% of simulations. **CONCLUSIONS:** Results showed that a vaccination program against herpes zoster and post-herpetic neuralgia is cost-effective in Italian patients aged between 60 and 79 years.

### PIH43

#### COST-UTILITY ANALYSIS OF A MEDICATION REVIEW WITH FOLLOW-UP FOR OLDER PEOPLE WITH POLYPHARMACY IN COMMUNITY PHARMACIES IN SPAIN: CONSIGUE PROGRAM

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**OBJECTIVES:** The objective of this study was to estimate the incremental cost-effectiveness ratio (ICER) of a medication review with follow-up (MRF) service for older people with polypharmacy in community pharmacies against the alternative of receiving usual dispensing. **METHODS:** The study was designed as a longitudinal cluster randomized trial carried out over six months of follow-up. The target